

margin, the ultimate nerves slightly elevated, irregularly reticulate; peduncles terminal, solitary, 2.5 cm. long, the involucre entire, 3 mm. high; calyx in bud 1 cm. long.

Type in the Herbarium of the Trinidad Botanic Garden, collected on Mt. Touche, Trinidad, June 21, 1907, by William Leslie (no. 9363).

While this may be only a form of *U. clusiaefolia*, the shape of the leaves is strikingly different, and it is probable that the present plant is specifically distinct. Flowering specimens of both are a desideratum.

ENTOMOLOGY.—*A new Reticulitermes from the Orient.* THOMAS E. SNYDER, U. S. Bureau of Entomology.

*Reticulitermes* Holmgren was established in 1913 as a subgenus of the genus *Leucotermes* Silvestri. N. Banks, in 1920, raised *Reticulitermes* to generic rank. I am adopting the generic value given this genus by Banks, although I am doubtful as to whether *Reticulitermes* can be considered of generic rank. I place *Reticulitermes* in the family *Rhinotermitidae*, since the species have protozoa (*Trichonympha*) in the guts and subcordate pronota which would exclude them from the family *Termitidae* where placed by Banks.

Species of both the genera *Leucotermes* and *Reticulitermes* are extremely destructive to timber and other woodwork. Winged adults of species of *Reticulitermes* are dark colored, with the wings strongly reticulated, but with few hairs or marginal cilia; they are species of relatively northern distribution, the centre of distribution being North America. Species of *Leucotermes* are lighter colored, have the margins of the wings ciliate and are of relatively southern distribution. I have recently revised this genus.

Only two species of *Reticulitermes* are known from the Orient; these eastern species are *R. speratus* Kolbe and *R. flaviceps* Oshima, both being from Japan. The new species to be described is from China.

***Reticulitermes chinensis*, sp. nov.**

*Winged adult.*—Head dark castaneous-brown (dark finished mahogany), smooth, shining, semi-quadrilateral, but rounded posteriorly, slightly longer than broad; at anterior of head above the ocelli are two prominent white spots (muscle attachments); head with dense, long, light yellow hairs. Fontanelle a small white point on a line connecting the backs of the eyes.

Antennae grey-brown with tips of segments whitish, 17-18 segments, pubescent; first segment clavate, elongate; second cylindrical, shorter; third very short, ring shaped; fourth twice as long as third; fifth more wedge shaped, slightly shorter than fourth; sixth longer than fifth; last segment elongate, sub-oval.

Eyes purplish, not quite round, not very prominent, separated from the lateral margins of head by a distance less than an eye diameter. Ocelli separated from eyes by a distance less than their small diameter.

Labrum yellow-brown, semi-tongue shaped.

Post-clypeus yellow-brown, much broader than long.

Pronotum about same color as head, smooth, shining, subcordate, not as wide as head, emarginate both anteriorly and posteriorly, raised up anteriorly, with long hairs.

Legs with femora greyish-brown, tibiae and tarsi yellowish.

Wings smaller than in *flavipes* and in the forewing the median vein is intermediate between subcosta and cubitus, whereas in *lucifugus* it is nearer to the cubitus.

Wing scale longer than pronotum, being 0.80 mm. in length.

Abdomen with tergites slightly lighter colored (more grey) than head, with long hairs; cerci three segmented; styli present in the male.



Fig. 1. Mandibles *a* left and *b* right, greatly enlarged

Measurements:

Length of entire winged adult: 9.15–9.40 mm.

Length of entire deadult: 4.8–5.2 mm.

Length of head (to tip of labrum): 1.25 mm.

Length of pronotum: 0.55 mm.

Length of hind tibia: 1.15 mm.

Length of anterior wing: 6.75–7.0 mm.

Width of head (at eyes): 1.15 mm.

Diameter of eye (long): 0.225 mm.

Width of pronotum: 0.95 mm.

Width of anterior wing: 1.90 mm.

From descriptions, *R. chinensis* is a smaller, lighter colored species than *R. speratus* Kolbe; the head is more hairy in *chinensis* and the teeth of the mandibles slightly different (Fig. 1); the ocelli are nearer to the eyes; the pronotum is not yellow. In the forewing the median vein is more intermediate between the subcosta and cubitus than in *speratus*. Winged adults of *chinensis* were compared with winged adults of *Reticulitermes lucifugus* Rossi from Talheiro, Maderia; of *R. flavipes* Kollar from the eastern United States;

and *R. claripennis* Banks from Kansas. *R. chinensis* is smaller than *lucifugus*; the ocelli are larger and the post-clypeus and the tibiae are more greyish-yellow colored, not so light castaneous; the post-clypeus is shorter and the fontanelle is smaller. *Chinensis* has not the yellow tibiae and tarsi of *flavipes*, ocelli are nearer to the compound eyes and the pronotum is smaller as is the entire insect. *R. claripennis* has lighter colored wings.

*Soldier*.—Head light yellow-brown, not twice as long as wide, ratio of length to width 1: 0.62–1: 0.63, sides parallel; with dense long hairs, rounded posteriorly. Eye spots indistinct if present. Gula slender, width at center being about one-half the width at the front. Mandibles dark castaneous with a reddish tinge, "S" shaped, incurved at tips; at base of left mandible two small marginal teeth—one sharp tooth and one small, broader, blunt (double?) tooth; right mandible with no teeth. The basal knobs of the mandibles are not regarded as teeth.

Antennae white with a yellowish tinge, with 16 segments, pubescent; third segment short, ring-like; fourth twice as long as third; fifth equals fourth; sixth longer; last segment elongate and sub-oval.

Labrum yellow-brown, narrow, pointed at apex, where there are long hairs.

Pronotum white with tinge of yellow, not as wide as head, nor not nearly twice as broad as long, emarginate both anteriorly and posteriorly, turned up anteriorly.

Legs white, with tinge of yellow, pubescent.

Abdomen white with tinge of yellow, with dense long, light yellow hairs.

Measurements:

Length of entire soldier: 4.9–5.4 mm.

Length of head with mandibles: 2.6–2.75 mm.

Length of head without mandibles (to anterior): 1.85–1.90 mm.

Length of left mandible: 1.5 mm.

Length of pronotum: 0.55–0.6 mm.

Length of hind tibia: 0.95–1.0 mm.

Width of head: 1.10–1.20 mm.

Width of pronotum: 0.85 mm.

The soldier of *chinensis* has a larger pronotum than that of *speratus* Kolbe, and the mandibles have slightly different marginal teeth; the soldier of *chinensis* has a longer, broader head than that of *flaviceps* Oshima.

*Type locality*.—"Suifu, Szechuen, (or Szechwan) China."

Described from a series of winged adults collected at the type locality May 1, 1920, and in 1922, by D. C. Graham. Soldiers with workers were also collected, at the type locality, in 1922 by D. C. Graham.

*Type, winged adult*.—Cat. No. 26043, U. S. N. M.